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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,351	HOLMQUIST ET AL.	
	Examiner	Art Unit	
	Christopher P Grey	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-67 rejected under 35 U.S.C. 103(a) as being unpatentable over Delvaux (US 6718419) in view of Delattre et al. (US 6606302)

Claim 1 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux discloses two ports (see fig 8) for each physical layer device. Delvaux also discloses an interface between the ATM layer device and a plurality of physical layer devices (Col 13 line 66- Col 14 line 18). Delvaux discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux does not specifically disclose each class of service corresponding to a port.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connection of an ATM network device to a plurality of physical network devices as disclosed by Delvaux with the distribution of shapers from an ATM network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 2 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 3 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45).

Claim 4 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 5 Delvaux discloses an interface conforming to a UTOPIA level 2 specification (Col 13 line 66- Col 14 line 18).

Claim 6 Delvaux discloses a number of physical layer devices connected to one another (see fig 8), where it would have been obvious to one skilled in the art that any of these physical layer devices can act as an external physical layer device.

Claim 7 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 8 Delvaux does not disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 9 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 10 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux discloses two ports (see fig 8) for each physical layer device. Delvaux also discloses an interface between the ATM layer device and a plurality of physical layer devices. Delvaux also discloses a number of physical layer device addresses (Col 13 line 66- Col 14 line 18). Delvaux also discloses an address extension device (element 160 in fig 8) connected to the interface (Col 14 line 57-Col 16 line 16), inherently known as an address expansion device. Delvaux discloses an address bus

(second local interface- element 169 in fig 8 and Col 14 line 57- Col 16 line 16) connecting the address extension device to a plurality of physical layer devices (second plurality of channel connections). Delvaux does not specifically disclose each port corresponding to a class of service.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art to modify the connections, including the address extension device as disclosed by Delvaux with the distribution of shapers from an atm network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 11 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 12 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 10.

Claim 13 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 14 Delvaux discloses an interface conforming to a UTOPIA level 2 specification (Col 13 line 66- Col 14 line 18).

Claim 15 Delvaux discloses a number of physical layer devices connected to one another (see fig 8), where one skilled in the art can appreciate any of these physical layer devices can be considered as an external physical layer device.

Claim 16 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 17 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 18 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 19 Delvaux discloses a communication system between an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12

lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux also discloses an interface between the ATM layer device and a plurality of physical layer devices (Col 13 line 66- Col 14 line 18). Delvaux discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux does not specifically disclose each class of service corresponding to a channel.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports/channels (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connection of an atm network device to a plurality of physical network devices as disclosed by Delvaux with the distribution of shapers from an atm network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 20 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of

shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 21 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 19 or 3.

Claim 22 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 23 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 24 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 25 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 26 Delvaux discloses providing communication between an ATM layer device (Fig 8 element 134) and a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux discloses two ports (see fig 8) for each physical layer device. Delvaux

discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux does not specifically disclose each class of service corresponding to a port/channel.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports/channels (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connection of an ATM network device to a plurality of physical network devices as disclosed by Delvaux with the distribution of shapers from an atm network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 27 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority

within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 28 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 26

Claim 29 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 30 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 31 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 32 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 33 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux discloses VPI/VCI values associated with the ATM cell. The VCI/VPI values are used to distinguish between individual connections (Col 12 line 59- Col 13 line37). Delvaux discloses

two ports (see fig 8) for each physical layer device. Delvaux also discloses an interface between the ATM layer device and a plurality of physical layer devices (Col 13 line 66- Col 14 line 18). Delvaux discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux does not specifically disclose each class of service corresponding to a port.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connection of an ATM network device to a plurality of physical network devices as disclosed by Delvaux with the distribution of shapers from an atm network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 34 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of

shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 35 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 33.

Claim 36 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 37 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 38 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 39 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 40 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied and determined by a predetermined set of rules. Delvaux discloses VPI/VCI values associated with the

ATM cell. The VCI/VPI values are used to distinguish between individual connections (Col 12 line 59- Col 13 line37). Delvaux discloses two ports (see fig 8) for each physical layer device and an interface between the ATM layer device and a plurality of physical layer devices. Delvaux also discloses a number of physical layer device addresses (Col 13 line 66- Col 14 line 18). Delvaux also discloses an address extension device (element 160 in fig 8) connected to the interface (Col 14 line 57-Col 16 line 16). Delvaux discloses an address bus (element 169 in fig 8 and Col 14 line 57- Col 16 line 16) connecting the address extension device to a plurality of physical layer devices (second plurality of channel connections). Delvaux does not specifically disclose each port corresponding to a class of service.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connections, including the address extension device as disclosed by Delvaux with the distribution of shapers from an ATM network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 41 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 42 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation for this is the same as that for claim 40.

Claim 43 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 44 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 45 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 46 Delvaux discloses using a DSL transfer medium (Col 13 lines 46-65).

Claim 47 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136). Delvaux discloses an interface (first portion of logic) between the ATM layer device and a plurality of physical layer devices (Col 13 line 66- Col 14 line 18). Delvaux discloses a number of different service classes (Col 12 lines 10-29), where one skilled in the art can appreciate any two to be applied. Delvaux discloses two ports (see fig 8) for each physical layer device (second and third portion of logic). Delvaux discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux does not specifically disclose each class of service corresponding to a port.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connection of an ATM network device to a plurality of physical network devices as disclosed by Delvaux with the distribution of shapers from an atm network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 48 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 49 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 47.

Claim 50 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 51 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 52 Delvaux does not disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 53 Delvaux discloses using a DSL transfer (fourth portion of logic) medium (Col 13 lines 46-65).

Claim 54 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136) and a computing device (computer readable medium) between the two devices (Col 2 lines 57- 67). Delvaux discloses a number of different service classes (Col 12 lines 10-29 and (Col 9 lines 35-55)), where one skilled in the art can appreciate any two to be applied via a first portion of logic and being determined by a predetermined set of rules. Delvaux discloses VPI/VCI values associated with the ATM cell. The VCI/VPI values are used to distinguish between individual connections (Col 12 line 59- Col 13 line37), where one skilled in the art can appreciate a third portion of logic to do so. Delvaux discloses two ports (see fig 8) for each physical layer device and an interface between the ATM layer device and a plurality of physical layer devices. Delvaux also discloses a number of physical layer device addresses (Col 13 line 66- Col 14 line 18). Delvaux discloses using a physical layer address to establish a connection, where one skilled in the art can appreciate a fourth portion of logic for doing so. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21), where one skilled in the art can also appreciate the same fourth portion of logic for doing so. Delvaux does not specifically disclose each port/channel corresponding to a class of service.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports/channels (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the connections, including the address extension device as disclosed by Delvaux with the distribution of shapers from an ATM network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 55 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 56 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 54.

Claim 57 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 58 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 59 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 60 Delvaux discloses using a DSL transfer (fifth portion of logic) medium (Col 13 lines 46-65).

Claim 61 Delvaux discloses an ATM layer device (Fig 8 element 134) supporting a plurality of physical layer devices (Fig 8 elements 136) and a computing device (computer readable medium) between the two devices (Col 2 lines 57- 67). Delvaux discloses a number of different physical layer devices (first portion of logic) for receiving ATM cells via a number of communication channels. Delvaux also discloses a number of different service classes (Col 12 lines 10-29 and (Col 9 lines 35-55)). Delvaux discloses end nodes (second portion of logic) that use *VPI*/VCI values associated with the ATM cell. The VCI/VPI values are used to distinguish between individual connections (Col 12 line 59- Col 13 line37), and a routing table (third portion of logic) is used to do so (Col 13 lines 16-36), where a routing table follows a set of predefined rules. Delvaux discloses (Col 14 lines 42-56) an ATM node (fourth portion of logic) that is configured (interfaced) with a data bus extender (address expansion device). Delvaux uses a routing table and VPI/VCI values to establish a connection to an identified port

Col 13 lines 16-36), where a routing table defines a predetermined set of rules. Delvaux discloses an interface (second local interface) that comprises a number of addressable units (Col 13 line 66- Col 14 lines 18). Delvaux discloses using a physical layer address to establish a connection. Delvaux also discloses using a physical address to select a range of possible physical devices to which a connection can be established (Col 15 lines 17- Col 16 line 21). Delvaux discloses each physical layer device containing two separate ports, where an identifier is used to identify and transmit cells to each. Delvaux does not specifically disclose each port/channel corresponding to a class of service.

Delattre et al. (Delattre 'hereinafter') discloses a number of shapers (defined by class of service, VBR and ABR) dedicated for their respective ports/channels (see fig 5a and Col 9 lines 40-59).

It would have been obvious to one of the ordinary skill in the art to modify the connections, including the address extension device as disclosed by Delvaux with the distribution of shapers from an ATM network as disclosed by Delattre. The motivation for this modification is to establish flow control (Col 5 lines 27-43), within channel ports associated to a specific address.

Claim 62 Delvaux does not disclose each channel/ port being adapted to carry either priority data or non-priority data.

Delattre discloses establishing priority within the network (Col 1lines 36-67), and a number of shapers dedicated to a particular port based on this priority (Col 9 lines 21-35).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Delvaux with the transmission of shapers as disclosed by Delattre in order to establish a certain degree of priority within the network (Col 1 lines 36-46). The motivation is the same as that for claim 1 and furthermore to establish priority.

Claim 63 Delvaux discloses different classes having different timing relations (real-time or non-real-time) between source and destination (Col 12 lines 10-48). Delvaux does not specifically disclose priority data as real-time data, and non-priority data as non-real-time data. However, Delattre discloses real time data being considered as priority data (Col 1 lines 36-45). The motivation is the same as that for claim 61.

Claim 64 Delvaux discloses a number of service classes defined by a constant bit rate and a variable bit rate (Col 12 lines 10-29).

Claim 65 Delvaux discloses an ATM network providing switching (Col 1 line 66- Col 2 line 9).

Claim 66 Delvaux does not specifically disclose DSLAM, however DSLAM is well known in the art as disclosed in the prior art (background) of the specification (Page 5 lines 9-15).

Claim 67 Delvaux discloses using a DSL transfer (fifth portion of logic) medium (Col 13 lines 46-65).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Jensen et al. (US 6732206) discloses a system of expanding addressing in an addressing constrained environment. Jensen discloses each slave (physical layer device) having a number of logical ports.

(b) Kunito et al. (US 6577633) discloses an ATM communication device designed to improve the efficiency of traffic within the network by separating real-time data and non real time data.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey
Examiner
Art Unit 2667

C. Grey
2/18/04

AFSAR QURESHI
PRIMARY EXAMINER

2/21/2005